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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/604,073

06/25/2003

Lynn L. Northrup JR.

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03/28/2005

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EXAMINER

MANOHARAN, VIRGINIA

ART UNIT

PAPER NUMBER

1764

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/604,073

Applicant(s)

NORTHROP, LYNN L.

Examiner

Virginia Manoharan

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2003.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

The specification had not been checked to the extent necessary to determine the presence of all possible minor errors, e.g., typographical, grammar, idiomatic, syntax and etc. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The disclosure is objected to because of the following informalities:

(a) The article "a" in claim 1 should be – an- as in "a inlet" in line 6.

(b) The inconsistent used of terminology in the claim is improper. For example: "evaporation region" in claims 1& 2 as opposed to "the evaporation system" in claim 3.

(c) In claim 4, line 2 and claim 7, line 2; heat exchange" should be – heat exchanger- respectively to correct typographical, error. See also claim 10, line 2 wherein the "heat exchanged" should be hear exchanger-.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) Claim 5 is incomplete as it depends on itself.

(b) It is unclear whether the inlet device, for example, do in fact introduce an inlet feed into the enclosure with the recitation of "adapted to". [the numerously recited "adapted to" in the claims should be deleted to obviate this rejection].

(c) The claimed "the slurry section" in claim 10, line 3 lacks antecedent support.

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(d) The claims, as framed, are functional to the point of being indefinite inasmuch as the process steps language and the functional language make the actual structure vague and the true structural limitation for apparatus claims are difficult to determine. What structure, for example, allows the liquid to drain or the structure that regulates in maintaining the pressure in the evaporation region as they are not recited e.g., in the "wherein" clause of claim 1?

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anyone Miller (3,693,370), Stevens et al (4,278,502) or Kurematsu et al. (5,439,560).

Anyone of the above references discloses the "...evaporation system comprising: an enclosure defining an evaporation region, a condensation region, and a liquid region; a liquid in the liquid region, a surface of the liquid defining a volume of the evaporation and condensation regions; an inlet in the evaporation region of the enclosure adapted to introduce an inlet feed into the enclosure; an outlet in the liquid region of the enclosure adapted to drain the liquid from the enclosure, wherein the liquid drains from the outlet at least in part by the weight of the liquid, and wherein as liquid is drained through the outlet, the volume of the evaporation and condensation regions increases and the pressure in the evaporation and condensation regions decreases..." as broadly claimed

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in claims 1 & 5. See also cols. 1-3, e.g., of the Miller's reference rendering obvious claims 2-8 and 10. See also Fig. 5 and the claims at cols. 15 and 16 of Kurematsu; Figs 1-3 and the claims at col. 4, lines 1-44 of Stevens et al. See further cols. 5-6 of Miller. The system of anyone of the above reference differs from the claimed invention in the subject matter recited in the "wherein" clauses in claim 1. However, the limitations in the "wherein" clauses in claim 1 have no patentable significance because they do not define any elements of an apparatus or system. They can not be distinguished from the art in the structural sense. A process limitation is also not the basis for patentability of an apparatus claim.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over anyone of Miller, Stevens et al or Kurematsu et al. as applied to claim 1-8 and 10 above, and further in view of Tajer –Ardebili (5,630,913).

The claimed degasifier in claim 9 is a known expediency in the art as taught by Tajer – Ardebili at col. 1 lines 61-64. See the degassing chamber (15) connected to a water inlet pipe (13) e.g., at Fig. 1 of the drawing. To incorporate the known degasifier to the apparatus of anyone of the above primary references would have been obvious to one of ordinary skill in the art so as to remove unwanted volatiles from the feed stream. See col. 1, lines 65-66 of the Tajer – Ardebili's reference.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) McCord discloses a vapor and generating apparatus.

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(b) Pitcher discloses an energy -efficient process and apparatus for desalinizing water.


(c) Moore et al, Atchison and Hording et al all disclose a refrigeration system with closed circulation path.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is 571-271-1450. The examiner can normally be reached on Tuesday-Friday from 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

V. Manoharan/af
March 21, 2005


VIRGINIA MANOHARAN
PRIMARY EXAMINER
ART UNIT 132/1764